



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,483	01/04/2001	Shigefumi Odaohhara	JP919990215US1	3573

25299 7590 07/13/2004

IBM CORPORATION
PO BOX 12195
DEPT 9CCA, BLDG 002
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

CHANG, ERIC

ART UNIT	PAPER NUMBER
----------	--------------

2116

DATE MAILED: 07/13/2004

//

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,483

Applicant(s)

ODAOHHARA, SHIGEFUMI

Examiner

Eric Chang

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-13 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 6 is objected to because of the following informalities: the term "supplying" on line 11 of the claim should read, "supplied". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Art Unit: 2116

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent 6,150,798 to Ferry et al.

6. As to claim 1, Ferry discloses a voltage converter comprising a first and a second power supply circuit [FIG. 3, elements 11 and 12] each capable of converting an input voltage into an output voltage [col. 1, lines 5-7], and means for providing a control signal [FIG. 3, element 13] to activate one of the power supply circuits based on a load demand on the voltage converter [col. 3, lines 18-35]. Ferry further discloses that the power supply circuits are disposed in parallel [FIG. 3, and col. 4, lines 37-44], wherein only one voltage regulator is active at a time [col. 3, lines 40-42].

7. As to claim 2, Ferry discloses the first power supply circuit is a linear, or series, power supply circuit [12], and the second power supply circuit is a switching power supply circuit [11].

8. As to claim 3, Ferry discloses the first power supply circuit is efficient during a low load demand [col. 2, lines 38-46], and the second power supply circuit is efficient during a high load demand [col. 2, lines 34-38].

Art Unit: 2116

9. As to claim 4, Ferry discloses the first power supply is activated when the load demand is low, and the second power supply is activated when the load demand is high [col. 7, lines 32-39].

10. As to claim 5, Ferry discloses the load demand is low when the voltage converter is in a suspended state, and high when the voltage converter is in a non-suspended state [col. 6, lines 55-61].

11. As to claim 6, Ferry discloses a voltage converter comprising a first and a second power supply circuit [FIG. 3, elements 11 and 12] each capable of converting an input voltage into an output voltage [col. 1, lines 5-7], and a detecting circuit [FIG. 3, element 13] to activate one of the power supply circuits based on an amount of current supplied to the power supply circuit, for example, from a battery [2]. Ferry further discloses that the power supply circuits are disposed in parallel [FIG. 3, and col. 4, lines 37-44], wherein only one voltage regulator is active at a time [col. 3, lines 40-42].

12. As to claim 7, Ferry discloses the first power supply circuit is a linear, or series, power supply circuit [12], and the second power supply circuit is a switching power supply circuit [11].

13. As to claim 8, Ferry discloses the first power supply circuit is efficient during a low load demand [col. 2, lines 38-46], and the second power supply circuit is efficient during a high load demand [col. 2, lines 34-38].

14. As to claim 9, Ferry discloses the first power supply is activated when the current amount is low, and the second power supply is activated when the current amount is high [col. 6, lines 62-65].

15. As to claim 10, Ferry discloses the current amount is low when the voltage converter is in a suspended state, and high when the voltage converter is in a non-suspended state [col. 6, lines 55-61].

16. As to claims 11 and 12, Ferry discloses the first and second power supply share a common voltage input [FIG. 3, element 2/Vbat] and common voltage output [FIG. 3, element S/Vout].

17. As to claim 13, Ferry discloses the detecting circuit senses the current of the power input line for the power supply circuits [col. 6, lines 44-51], wherein the level of the battery voltage is detected.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2116

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (703) 305-4612. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/754,483

Page 7

Art Unit: 2116

ec

June 15, 2004

A handwritten signature in black ink, consisting of a stylized 'A' followed by a long horizontal line.

A. ELAMIN
PRIMARY EXAMINER